

### Abstract

The invention relates to a fuel injection system for internal combustion engines, having a fuel injector (3) that can be supplied from a high-pressure source (21). A pressure boosting system (2) that contains a booster piston (5) is connected between the fuel injector (3) and the high-pressure fuel source (21). The booster piston (5) divides a chamber (9), connected to the high-pressure fuel source (21), from a high-pressure chamber (11) communicating with the fuel injector (3) and from a differential pressure chamber (10). The actuation of the pressure boosting system (2) is effected via a 2/2-way valve (4) assigned to the differential pressure chamber (10). For refilling of the differential pressure chamber (10) and the high-pressure chamber (11) of the pressure boosting system (2), hydraulically actuated check valves (26, 31) are provided, which upon pressure relief of the differential pressure chamber (10) are acted upon hydraulically via a flow connection (25) that branches off from the high-pressure chamber (11) of the pressure boosting system (2).

(Fig. 2)